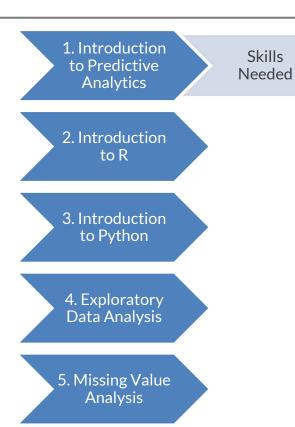


# **Predictive Analytics Using R and Python**

- MUQUAYYAR AHMED DATA SCIENTIST

### We learnt!!



Applications

What is Data

**Analytics** 

Type of Problems

CRISP-DM Process

**ed**Wisor

# Today's Agenda

Outlier Analysis

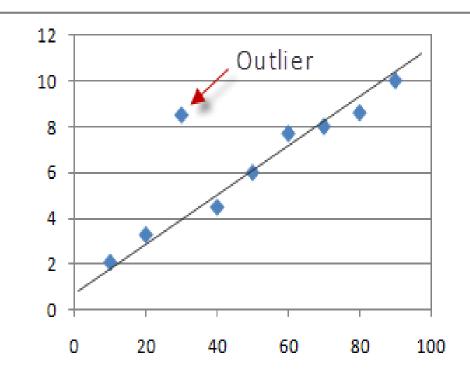
# **Outlier Analysis**

#### What is an outlier?

 Observations inconsistent with rest of the dataset Global Outlier

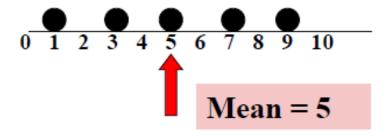
#### **Causes of Outliers**

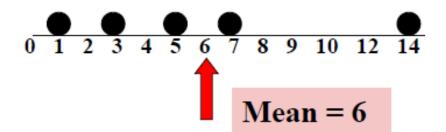
- Poor data quality / contamination
- Low quality measurements, malfunctioning equipment, manual error
- Correct but exceptional data



## Contd...

- Mean = Most Common measure of Central Tendency
- Mean Affected by Extreme Values





## How to detect??

- Graphical tools
  - o Box plot
- Statistical Technique
  - o Grubbs' test for outlier
- R package "Outlier"
- Replace with NA

